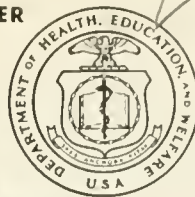


# Morbidity and Mortality



Vol. 17, No. 47

WEEKLY  
REPORT

Week Ending  
November 23, 1968

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

PUBLIC HEALTH SERVICE

HEALTH SERVICES AND MENTAL HEALTH ADMINISTRATION

## EPIDEMIOLOGIC NOTES AND REPORTS INFLUENZA - United States and Puerto Rico

Reports of documented outbreaks of A2 Hong Kong '68 influenza or of influenza-like illness were received from the following areas during the past week: southeastern Pennsylvania; Colorado Springs, Colorado; southern Arizona; North Carolina; Seattle, Washington; eastern Oregon; and Puerto Rico.

In Pennsylvania, febrile respiratory illness rates and absenteeism rates increased in several industries, universities, and one high school. Between October 30 and November 22, an outbreak of A2 Hong Kong '68 influenza occurred among residents at a home for the elderly; five deaths were attributed to the outbreak. It was confirmed by viral isolations.

## Epidemiologic Notes and Reports

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Vomiting Disease, in Elementary School -  
Norwalk, Ohio . . . . . 134

In Colorado Springs, Colorado, an increase in absenteeism rates in public schools and in three military installations due to influenza-like illness was noted. One of the military installations had an estimated attack rate of 60-70 percent among its personnel, and another installation experienced a 15 percent attack rate among the 30,000

(Continued on page 434)

TABLE I. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES  
(Cumulative totals include revised and delayed reports through previous weeks)

| DISEASE   | 47th WEEK ENDED      |                      | MEDIAN<br>1963 - 1967 | CUMULATIVE, FIRST 47 WEEKS |         |                       |
|---|----------------------|----------------------|-----------------------|----------------------------|---------|-----------------------|
|   | November 23,<br>1968 | November 25,<br>1967 |                       | 1968                       | 1967    | MEDIAN<br>1963 - 1967 |
| Aseptic meningitis . . . . .                          | 81                   | 45                   | 45                    | 4,055                      | 2,785   | 1,964                 |
| Brucellosis . . . . .                                 | 8                    | 4                    | 5                     | 207                        | 228     | 228                   |
| Diphtheria . . . . .                                  | 6                    | 10                   | 8                     | 215                        | 163     | 184                   |
| Encephalitis, primary:                                |                      |                      |                       |                            |         |                       |
| Arthropod-borne & unspecified . . . . .               | 33                   | 19                   | ---                   | 1,295                      | 1,470   | ---                   |
| Encephalitis, post-infectious . . . . .               | 6                    | 3                    | ---                   | 438                        | 702     | ---                   |
| Hepatitis, serum . . . . .                            | 152                  | 73                   | 724                   | 4,189                      | 2,042   | 34,395                |
| Hepatitis, infectious . . . . .                       | 1,178                | 701                  |                       | 41,343                     | 34,848  |                       |
| Malaria . . . . .                                     | 39                   | 30                   | 3                     | 2,146                      | 1,890   | 97                    |
| Measles (rubeola) . . . . .                           | 245                  | 282                  | 1,414                 | 21,234                     | 60,484  | 250,745               |
| Meningococcal infections, total . . . . .             | 48                   | 28                   | 42                    | 2,321                      | 1,956   | 2,518                 |
| Civilian . . . . .                                    | 44                   | 27                   | ---                   | 2,129                      | 1,833   | ---                   |
| Military . . . . .                                    | 4                    | 1                    | ---                   | 192                        | 123     | ---                   |
| Mumps . . . . .                                       | 2,055                | ---                  | ---                   | 137,916                    | ---     | ---                   |
| Poliomyelitis, total . . . . .                        | 1                    | 3                    | 2                     | 55                         | 41      | 92                    |
| Paralytic . . . . .                                   | 1                    | 3                    | 2                     | 55                         | 32      | 85                    |
| Rubella (German measles) . . . . .                    | 294                  | 273                  | ---                   | 46,701                     | 42,395  | ---                   |
| Streptococcal sore throat & scarlet fever . . . . .   | 11,027               | 7,477                | 7,477                 | 383,472                    | 400,709 | 354,430               |
| Tetanus . . . . .                                     | ---                  | 5                    | 5                     | 151                        | 203     | 251                   |
| Tularemia . . . . .                                   | 5                    | 2                    | 2                     | 165                        | 156     | 230                   |
| Typhoid fever . . . . .                               | 12                   | 7                    | 7                     | 365                        | 378     | 407                   |
| Typhus, tick-borne (Rky. Mt. spotted fever) . . . . . | 3                    | 3                    | 2                     | 273                        | 296     | 245                   |
| Rabies in animals . . . . .                           | 50                   | 55                   | 57                    | 3,068                      | 3,870   | 3,870                 |

TABLE II. NOTIFIABLE DISEASES OF LOW FREQUENCY

|   | Cum. |  | Cum. |
|---|------|--|------|
| Anthrax: . . . . .                      | 3    | Rabies in man: . . . . .                                 | 1    |
| Botulism: . . . . .                     | 7    | Rubella, Congenital Syndrome: . . . . .                  | 5    |
| Leptospirosis: Fla.-1, Tex.-1 . . . . . | 48   | Trichinosis: * Iowa-1, Mich.-1, NYC-2, Tenn.-1 . . . . . | 59   |
| Plague: . . . . .                       | 3    | Typhus, murine: . . . . .                                | 30   |
| Psittacosis: . . . . .                  | 40   | Polio, Unsp.: . . . . .                                  | ---  |

\*Delayed reports: Trichinosis: N.H. delete 1

## INFLUENZA - (Continued from front page)

people on the base. Several A2 influenza isolates were obtained, and additional specimens are being processed.

In southern Arizona, an outbreak of influenza-like illness occurred in a small town. The illness was described as mild and lasted from 5 to 7 days. From November 18-22, school absenteeism rates in an elementary school in the town increased 60 percent and in a high school, 400 percent. Laboratory confirmation of the outbreak is pending.

In North Carolina, an outbreak of influenza-like illness occurred in a group of residents who flew from North Carolina to Las Vegas and then to Honolulu in early October. The illnesses occurred between October 13 and November 1 and the attack rate was approximately 35 percent. Sera from 23 ill persons and from 17 persons without illness showed a greater than fourfold rise in titer to A2/Hong Kong '68 antibody by the hemagglutination-inhibition technique. There have been no other reported outbreaks in North Carolina.

In Seattle, Washington, a mild influenza-like illness occurred in 20 physicians at a hospital. Four viral isolates with hemadsorption properties of A2 influenza were obtained.

In eastern Oregon, an A2 influenza isolate was obtained from a patient with influenza-like illness. Although four or five other cases were associated with this case, there has been no major outbreak.

In Puerto Rico, an outbreak of influenza occurred between September 7 and November 16 with 51,658 cases being reported. The peak of the outbreak occurred during the weeks ending October 16 and 26 when 5,495 and 12,553 cases, respectively, were reported. This epidemic was reported as less intense than the January 1965 A2 influenza outbreak when approximately 23,000 cases were re-

ported during 1 week along. Five influenza A2 viruses have been isolated; another isolate was confirmed as an A2/Hong Kong '68-like virus.

(Reported by W. D. Schrack, Jr., M.D., Director, Division of Communicable Diseases, and James E. Prier, Ph.D., Director, Division of Laboratories, Pennsylvania Department of Health; Lewis D. Polk, M.D., Deputy Health Commissioner for Community Health Services, and Alfred S. Bogucki, M.D., Director, Division of Epidemiology, Philadelphia Department of Public Health; Col. Ralph Singer, Chief, Communicable Diseases Branch, Preventive Medicine Division, Office of the Surgeon General, Department of the Army; James Hoffman, M.D., Director of Aviation Medicine, United States Air Force Academy, Colorado Springs; Col. Harry Umloff, Hospital Commander, Fort Carson, Colorado; Richard K. Miller, M.D., Director, El Paso City-County Health Department, Colorado Springs; Melvin H. Goodwin, Jr., Ph.D., Director, Preventive Medical Services, Arizona State Department of Health; Martin P. Hines, D.V.M., Director, Division of Epidemiology, North Carolina State Board of Health; Donald R. Peterson, M.D., Epidemiologist, Seattle-King County Health Department, Byron J. Francis, M.D., Head, Division of Epidemiology, and Vern Ashbey, Head, Virology Unit, Division of Laboratories, Washington State Department of Health; Edward Press, M.D., State Health Officer, Oregon State Board of Health; Louis Mainardi, M.D., Chief, Communicable Disease Control, Carlos Vicens, M.D., Director, Program for Preventive Medicine, Angeo A. Colon, M.D., Director of Institute of Laboratories, and Mrs. Maria Teresa P. de Perez, Statistician, Puerto Rico Department of Health; and Respiratory Virus Infections Unit, Laboratory Program, NCDC.)

### EPIDEMIC GASTROENTERITIS, POSSIBLE WINTER VOMITING DISEASE, IN AN ELEMENTARY SCHOOL - Norwalk, Ohio

On October 30 and 31, 1968, an acute gastrointestinal illness developed in 50 percent (116 of 232) of the students and teachers of an elementary school in Norwalk, Ohio. Index cases occurred on the evening of October 29 with most cases occurring in the 24-hour period between noon of October 30 and noon of October 31 (Figure 1). The illness was characterized principally by nausea, vomiting, and abdominal cramps; diarrhea occurred in 44 percent of the cases (Table 1). The symptoms lasted from 12 to 24 hours in most instances and seldom more than 48 hours. No patient was hospitalized, and there were no known sequelae.

Family contacts of primary cases also developed the syndrome. The secondary attack rate in these families was 29.5 percent (113 ill of 379 at risk). This is significantly different from the 3 percent attack rate in both family contacts of well children who attend this school and in the community at large as ascertained by a telephone survey. Secondary cases occurred predominantly on November 1,

2, and 3, with an average incubation period of 48 hours (Figure 2). The attack rate difference between the students' mothers and fathers (37 and 22 percent, respectively) and between small and large families were not significantly different.

Epidemiologic analysis of primary cases excluded a foodborne mode of spread as students who brought their lunches from home had similar attack rates with those who bought lunch in the school cafeteria. This school, in contrast with the other schools in the system which receive city water, has its own well; this well water could not be excluded as the mode of spread. The one class with the lowest attack rate had the lowest reported use of drinking water on October 29 and 30. Although the water is routinely chlorinated, adequate levels of chlorine could not be demonstrated. Coliform counts on the well water on October 21 and November 12 were negative. No cross contamination could be demonstrated between the septic tank and

Figure 1  
PRIMARY CASES OF GASTROENTERITIS  
BY TIME OF ONSET  
NORWALK, OHIO  
OCTOBER 29 – NOVEMBER 3, 1968

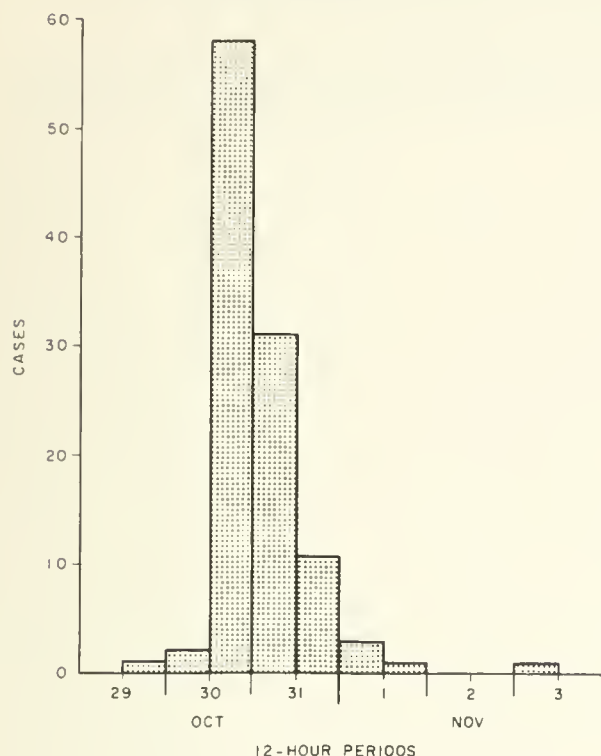


Figure 2  
CASES OF GASTROENTERITIS IN FAMILY CONTACTS  
OF PRIMARY CASES BY DAY OF ONSET  
OCTOBER 30 – NOVEMBER 7, 1968



the well or between the septic tank and a water softener used to treat water for drinking in the school. Following the investigation, bottled water was purchased for the school until the drinking water could be proved safe.

Stool swabs and specimens were obtained from primary and secondary cases, some asymptomatic children attending the school, some asymptomatic persons from affected families, and food handlers for bacterial and viral studies and from some primary cases for parasitic studies.

Throat swabs were also obtained. Results of these studies are pending.

Food from the October 28 and 29 lunches at the school was not available for culture, but milk and food from the October 30 lunch were analyzed for *Salmonella*, *Shigella*, *Staphylococcus aureus*, and coliforms. None were recovered. Well water was obtained for bacteriologic and virologic studies.

(Continued on page 440)

Table 1  
Clinical Data from Primary and Secondary Cases  
Norwalk, Ohio  
October 29 – November 7, 1968

| Symptom          | 99 Primary Cases    |         | 100 Secondary Cases |         | Total               |         |
|------------------|---------------------|---------|---------------------|---------|---------------------|---------|
|                  | Number with Symptom | Percent | Number with Symptom | Percent | Number with Symptom | Percent |
| Nausea           | 97                  | 98      | 73                  | 73      | 170                 | 85      |
| Vomiting         | 91                  | 92      | 76                  | 76      | 167                 | 84      |
| Abdominal Cramps | 58                  | 59      | 66                  | 66      | 124                 | 62      |
| Lethargy         | 52                  | 53      | 54                  | 54      | 106                 | 53      |
| Diarrhea         | 38                  | 38      | 50                  | 50      | 88                  | 44      |
| Fever            | 34                  | 34      | 30                  | 30      | 64                  | 32      |
| Chills           | 4                   | 4       | 5                   | 5       | 9                   | 5       |

## Morbidity and Mortality Weekly Report

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED  
NOVEMBER 23, 1968 AND NOVEMBER 25, 1967 (47th WEEK)

| AREA                    | ASEPTIC<br>MENINGITIS |      | BRUCELLOSIS | DIPHTHERIA | ENCEPHALITIS                        |                     |       | HEPATITIS  |       |      | MALARIA |
|-------------------------|-----------------------|------|-------------|------------|-------------------------------------|---------------------|-------|------------|-------|------|---------|
|                         |                       |      |             |            | Primary<br>including<br>unsp. cases | Post-<br>Infectious | Serum | Infectious |       |      |         |
|                         | 1968                  | 1967 | 1968        | 1968       | 1968                                | 1967                | 1968  | 1968       | 1968  | 1967 | 1968    |
| UNITED STATES...        | 81                    | 45   | 8           | 6          | 33                                  | 19                  | 6     | 152        | 1,178 | 701  | 39      |
| NEW ENGLAND.....        | 6                     | -    | -           | -          | -                                   | -                   | -     | 7          | 58    | 28   | 3       |
| Maine*.....             | 1                     | -    | -           | -          | -                                   | -                   | -     | -          | 2     | 1    | 1       |
| New Hampshire.....      | -                     | -    | -           | -          | -                                   | -                   | -     | -          | -     | -    | -       |
| Vermont.....            | -                     | -    | -           | -          | -                                   | -                   | -     | -          | 1     | -    | -       |
| Massachusetts.....      | 2                     | -    | -           | -          | -                                   | -                   | -     | 2          | 22    | 9    | 2       |
| Rhode Island.....       | 2                     | -    | -           | -          | -                                   | -                   | -     | -          | 9     | 5    | -       |
| Connecticut.....        | 1                     | -    | -           | -          | -                                   | -                   | -     | 5          | 24    | 13   | -       |
| MIDDLE ATLANTIC.....    | 24                    | 4    | 1           | -          | 4                                   | -                   | 2     | 74         | 239   | 156  | 5       |
| New York City.....      | 11                    | -    | -           | -          | 1                                   | -                   | -     | 57         | 113   | 40   | 1       |
| New York, up-State..... | 10                    | -    | -           | -          | 2                                   | -                   | 1     | 5          | 49    | 34   | -       |
| New Jersey.....         | 3                     | 3    | 1           | -          | 1                                   | -                   | -     | 10         | 46    | 63   | 2       |
| Pennsylvania.....       | -                     | 1    | -           | -          | -                                   | -                   | 1     | 2          | 31    | 19   | 2       |
| EAST NORTH CENTRAL...   | 14                    | 11   | 1           | -          | 14                                  | 11                  | 2     | 5          | 165   | 138  | 3       |
| Ohio*.....              | 3                     | -    | -           | -          | 10                                  | 7                   | 1     | 1          | 36    | 46   | -       |
| Indiana.....            | 2                     | -    | -           | -          | -                                   | 2                   | 1     | -          | 11    | 27   | -       |
| Illinois.....           | 4                     | 2    | -           | -          | -                                   | 1                   | -     | 3          | 55    | 18   | 2       |
| Michigan.....           | 4                     | 4    | -           | -          | 3                                   | 1                   | -     | 1          | 51    | 36   | 1       |
| Wisconsin.....          | 1                     | 5    | 1           | -          | 1                                   | -                   | -     | -          | 12    | 11   | -       |
| WEST NORTH CENTRAL...   | 2                     | 1    | 2           | 1          | 2                                   | -                   | -     | -          | 81    | 23   | 1       |
| Minnesota.....          | 2                     | 1    | 1           | -          | 1                                   | -                   | -     | -          | 30    | 7    | -       |
| Iowa*.....              | -                     | -    | 1           | -          | 1                                   | -                   | -     | -          | 4     | 7    | -       |
| Missouri.....           | -                     | -    | -           | 1          | -                                   | -                   | -     | -          | 14    | 2    | 1       |
| North Dakota.....       | -                     | -    | -           | -          | -                                   | -                   | -     | -          | -     | -    | -       |
| South Dakota.....       | -                     | -    | -           | -          | -                                   | -                   | -     | -          | 16    | -    | -       |
| Nebraska.....           | -                     | -    | -           | -          | -                                   | -                   | -     | -          | 1     | 1    | -       |
| Kansas.....             | -                     | -    | -           | -          | -                                   | -                   | -     | -          | 16    | 6    | -       |
| SOUTH ATLANTIC.....     | 1                     | 6    | -           | 3          | 2                                   | 2                   | 2     | 9          | 143   | 48   | 4       |
| Delaware.....           | -                     | 1    | -           | -          | -                                   | -                   | -     | -          | -     | 1    | -       |
| Maryland.....           | -                     | 4    | -           | -          | 1                                   | 1                   | -     | 1          | 23    | 15   | -       |
| Dist. of Columbia..     | -                     | -    | -           | -          | -                                   | -                   | -     | -          | 3     | -    | -       |
| Virginia.....           | -                     | -    | -           | -          | -                                   | -                   | -     | -          | 11    | 14   | -       |
| West Virginia.....      | -                     | -    | -           | -          | -                                   | -                   | -     | -          | 3     | 7    | -       |
| North Carolina*....     | 1                     | 1    | -           | -          | -                                   | -                   | -     | -          | 2     | 1    | 2       |
| South Carolina*....     | -                     | -    | -           | -          | -                                   | 1                   | -     | -          | 8     | -    | -       |
| Georgia.....            | -                     | -    | -           | 3          | 1                                   | -                   | -     | -          | 34    | 2    | -       |
| Florida.....            | -                     | -    | -           | -          | -                                   | -                   | 2     | 8          | 59    | 8    | 2       |
| EAST SOUTH CENTRAL...   | 5                     | 3    | -           | -          | 3                                   | 1                   | -     | -          | 71    | 50   | 10      |
| Kentucky.....           | 1                     | -    | -           | -          | -                                   | -                   | -     | -          | 36    | 16   | 10      |
| Tennessee.....          | 3                     | -    | -           | -          | 3                                   | 1                   | -     | -          | 23    | 17   | -       |
| Alabama.....            | -                     | 1    | -           | -          | -                                   | -                   | -     | -          | 4     | 3    | -       |
| Mississippi.....        | 1                     | 2    | -           | -          | -                                   | -                   | -     | -          | 8     | 14   | -       |
| WEST SOUTH CENTRAL...   | 5                     | 2    | 1           | 2          | 3                                   | -                   | -     | -          | 67    | 65   | -       |
| Arkansas.....           | 1                     | -    | -           | -          | -                                   | -                   | -     | -          | 6     | 4    | -       |
| Louisiana.....          | 1                     | -    | -           | 2          | 1                                   | -                   | -     | -          | 20    | 19   | -       |
| Oklahoma.....           | -                     | -    | -           | -          | 1                                   | -                   | -     | -          | 7     | 4    | -       |
| Texas*.....             | 3                     | 2    | 1           | -          | 1                                   | -                   | -     | -          | 34    | 38   | -       |
| MOUNTAIN.....           | 2                     | 1    | 1           | -          | 1                                   | -                   | -     | 2          | 62    | 35   | 4       |
| Montana.....            | -                     | -    | -           | -          | -                                   | -                   | -     | -          | 7     | 8    | -       |
| Idaho.....              | -                     | -    | -           | -          | -                                   | -                   | -     | -          | 9     | 3    | -       |
| Wyoming.....            | -                     | -    | -           | -          | -                                   | -                   | -     | -          | 1     | -    | -       |
| Colorado.....           | 2                     | -    | -           | -          | 1                                   | -                   | -     | 1          | 30    | 7    | 4       |
| New Mexico.....         | -                     | 1    | -           | -          | -                                   | -                   | -     | -          | 7     | 5    | -       |
| Arizona.....            | -                     | -    | -           | -          | -                                   | -                   | -     | -          | 6     | 9    | -       |
| Utah.....               | -                     | -    | 1           | -          | -                                   | -                   | -     | 1          | 2     | 2    | -       |
| Nevada.....             | -                     | -    | -           | -          | -                                   | -                   | -     | -          | -     | 1    | -       |
| PACIFIC.....            | 22                    | 17   | 2           | -          | 4                                   | 5                   | -     | 55         | 292   | 158  | 9       |
| Washington.....         | 1                     | 2    | -           | -          | 1                                   | -                   | -     | 1          | 46    | 32   | -       |
| Oregon.....             | -                     | -    | -           | -          | -                                   | -                   | -     | 1          | 24    | 9    | 2       |
| California.....         | 20                    | 15   | 2           | -          | 3                                   | 5                   | -     | 53         | 221   | 112  | 6       |
| Alaska.....             | 1                     | -    | -           | -          | -                                   | -                   | -     | -          | 1     | 4    | -       |
| Hawaii.....             | -                     | -    | -           | -          | -                                   | -                   | -     | -          | -     | 1    | 1       |
| Puerto Rico*.....       | -                     | -    | -           | -          | -                                   | -                   | -     | -          | 20    | 25   | -       |

\*Delayed reports: Diphtheria: Tex. 15

Encephalitis, primary: Iowa 1

Hepatitis, serum: P.R. 1

Hepatitis, infectious: Me. 3, Ohio delete 1, S.C. delete 5, P.R. 23

Malaria: N.C. delete 1



TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES  
FOR WEEKS ENDED  
NOVEMBER 23, 1968 AND NOVEMBER 25, 1967 (47th WEEK) - CONTINUED

| AREA                    | MEASLES (Rubeola) |            |        | MENINGOCOCCAL INFECTIONS,<br>TOTAL |            |       | MUMPS | POLIOMYELITIS |       |           | RUBELLA |              |
|-------------------------|-------------------|------------|--------|------------------------------------|------------|-------|-------|---------------|-------|-----------|---------|--------------|
|                         | 1968              | Cumulative |        | 1968                               | Cumulative |       |       | 1968          | Total | Paralytic |         |              |
|                         |                   | 1968       | 1967   |                                    | 1968       | 1967  |       |               | 1968  | 1968      |         | Cum.<br>1968 |
| UNITED STATES...        | 245               | 21,234     | 60,484 | 48                                 | 2,321      | 1,956 | 2,055 | 1             | 1     | 55        | 294     |              |
| NEW ENGLAND.....        | 11                | 1,224      | 915    | 1                                  | 134        | 78    | 251   | -             | -     | 1         | 23      |              |
| Maine.*.....            | -                 | 38         | 262    | -                                  | 6          | 3     | 21    | -             | -     | -         | 1       |              |
| New Hampshire.....      | -                 | 141        | 77     | -                                  | 7          | 3     | 19    | -             | -     | -         | 2       |              |
| Vermont.....            | -                 | 2          | 34     | -                                  | 1          | 1     | 20    | -             | -     | -         | -       |              |
| Massachusetts.....      | 3                 | 381        | 384    | 1                                  | 71         | 36    | 98    | -             | -     | 1         | 8       |              |
| Rhode Island.....       | 1                 | 23         | 62     | -                                  | 9          | 4     | 32    | -             | -     | -         | 2       |              |
| Connecticut.....        | 7                 | 639        | 96     | -                                  | 40         | 31    | 61    | -             | -     | -         | 10      |              |
| MIDDLE ATLANTIC.....    | 93                | 4,473      | 2,450  | 12                                 | 420        | 320   | 63    | -             | -     | 1         | 25      |              |
| New York City.....      | 23                | 2,315      | 497    | 2                                  | 86         | 56    | 30    | -             | -     | -         | 5       |              |
| New York, Up-State..... | 46                | 1,324      | 623    | -                                  | 72         | 81    | NN    | -             | -     | 1         | 8       |              |
| New Jersey.....         | 2                 | 673        | 564    | 6                                  | 146        | 103   | 33    | -             | -     | -         | 8       |              |
| Pennsylvania.....       | 22                | 161        | 766    | 4                                  | 116        | 80    | NN    | -             | -     | -         | 4       |              |
| EAST NORTH CENTRAL...   | 33                | 4,047      | 5,965  | 5                                  | 287        | 274   | 567   | 1             | 1     | 9         | 99      |              |
| Ohio.....               | 2                 | 315        | 1,175  | 4                                  | 81         | 92    | 30    | -             | -     | 2         | 8       |              |
| Indiana.....            | 2                 | 704        | 637    | -                                  | 39         | 31    | 48    | -             | -     | 2         | 9       |              |
| Illinois.....           | 5                 | 1,404      | 1,138  | -                                  | 63         | 61    | 97    | -             | -     | 2         | 9       |              |
| Michigan.....           | 6                 | 313        | 1,001  | 1                                  | 84         | 69    | 195   | 1             | 1     | 3         | 42      |              |
| Wisconsin.....          | 18                | 1,311      | 2,014  | -                                  | 20         | 21    | 197   | -             | -     | -         | 31      |              |
| WEST NORTH CENTRAL...   | 6                 | 407        | 2,941  | 1                                  | 126        | 93    | 255   | -             | -     | 3         | 25      |              |
| Minnesota.....          | -                 | 18         | 135    | -                                  | 29         | 21    | -     | -             | -     | -         | -       |              |
| Iowa.....               | 4                 | 108        | 773    | -                                  | 10         | 19    | 194   | -             | -     | 1         | 16      |              |
| Missouri.....           | -                 | 81         | 340    | 1                                  | 41         | 18    | 29    | -             | -     | 2         | -       |              |
| North Dakota.....       | -                 | 138        | 885    | -                                  | 4          | 3     | 19    | -             | -     | -         | 4       |              |
| South Dakota.....       | -                 | 4          | 58     | -                                  | 5          | 7     | NN    | -             | -     | -         | -       |              |
| Nebraska.....           | 2                 | 48         | 656    | -                                  | 9          | 15    | 11    | -             | -     | -         | -       |              |
| Kansas.....             | -                 | 10         | 94     | -                                  | 28         | 10    | 2     | -             | -     | -         | 5       |              |
| SOUTH ATLANTIC.....     | 28                | 1,608      | 7,194  | 12                                 | 463        | 376   | 163   | -             | -     | 3         | 26      |              |
| Delaware.....           | -                 | 17         | 50     | -                                  | 9          | 7     | 2     | -             | -     | -         | 1       |              |
| Maryland.....           | -                 | 103        | 174    | -                                  | 40         | 53    | 14    | -             | -     | -         | 1       |              |
| Dist. of Columbia..     | -                 | 6          | 24     | 1                                  | 17         | 15    | -     | -             | -     | 1         | -       |              |
| Virginia.....           | -                 | 319        | 2,253  | -                                  | 44         | 43    | 11    | -             | -     | -         | 7       |              |
| West Virginia.....      | 2                 | 312        | 1,457  | -                                  | 13         | 36    | 73    | -             | -     | 1         | 4       |              |
| North Carolina.....     | 8                 | 292        | 926    | 5                                  | 91         | 75    | NN    | -             | -     | 1         | -       |              |
| South Carolina.....     | 4                 | 19         | 512    | 3                                  | 61         | 31    | 24    | -             | -     | -         | -       |              |
| Georgia.....            | -                 | 4          | 41     | -                                  | 90         | 57    | -     | -             | -     | -         | -       |              |
| Florida.....            | 14                | 536        | 1,757  | 3                                  | 98         | 59    | 39    | -             | -     | -         | 13      |              |
| EAST SOUTH CENTRAL...   | 1                 | 503        | 5,448  | 4                                  | 208        | 155   | 76    | -             | -     | 1         | 6       |              |
| Kentucky.....           | -                 | 103        | 1,426  | 1                                  | 94         | 45    | 41    | -             | -     | 1         | 1       |              |
| Tennessee.....          | 1                 | 64         | 1,994  | 2                                  | 63         | 67    | 35    | -             | -     | -         | 1       |              |
| Alabama.....            | -                 | 95         | 1,354  | -                                  | 27         | 29    | -     | -             | -     | -         | 4       |              |
| Mississippi.....        | -                 | 241        | 674    | -                                  | 24         | 14    | -     | -             | -     | -         | -       |              |
| WEST SOUTH CENTRAL...   | 25                | 5,130      | 17,964 | 5                                  | 331        | 246   | 96    | -             | -     | 24        | 19      |              |
| Arkansas.....           | -                 | 2          | 1,404  | -                                  | 20         | 37    | -     | -             | -     | 1         | -       |              |
| Louisiana.....          | 1                 | 25         | 156    | 1                                  | 94         | 97    | 13    | -             | -     | -         | -       |              |
| Oklahoma.....           | -                 | 128        | 3,359  | 1                                  | 53         | 18    | 3     | -             | -     | 2         | 2       |              |
| Texas.....              | 24                | 4,975      | 13,045 | 3                                  | 164        | 94    | 80    | -             | -     | 21        | 17      |              |
| MOUNTAIN.....           | 14                | 1,056      | 4,831  | 2                                  | 41         | 40    | 84    | -             | -     | 1         | 21      |              |
| Montana.....            | -                 | 58         | 328    | -                                  | 6          | 5     | 4     | -             | -     | -         | -       |              |
| Idaho.....              | -                 | 21         | 395    | -                                  | 11         | 3     | -     | -             | -     | -         | 1       |              |
| Wyoming.....            | -                 | 54         | 195    | -                                  | 3          | 1     | 1     | -             | -     | -         | -       |              |
| Colorado.....           | 2                 | 520        | 1,610  | 1                                  | 12         | 13    | 36    | -             | -     | -         | 9       |              |
| New Mexico.....         | 8                 | 143        | 604    | 1                                  | 1          | 5     | 25    | -             | -     | -         | 2       |              |
| Arizona.....            | 3                 | 233        | 1,047  | -                                  | 4          | 6     | 11    | -             | -     | 1         | 5       |              |
| Utah.....               | -                 | 21         | 383    | -                                  | 1          | 4     | 7     | -             | -     | -         | 4       |              |
| Nevada.....             | 1                 | 6          | 269    | -                                  | 3          | 3     | -     | -             | -     | -         | -       |              |
| PACIFIC.....            | 34                | 2,786      | 12,776 | 6                                  | 311        | 374   | 500   | -             | -     | 12        | 50      |              |
| Washington.....         | 2                 | 583        | 5,607  | -                                  | 47         | 37    | 119   | -             | -     | 1         | 20      |              |
| Oregon.....             | 8                 | 572        | 1,689  | 1                                  | 25         | 30    | 29    | -             | -     | -         | 6       |              |
| California.....         | 24                | 1,585      | 5,158  | 5                                  | 222        | 292   | 334   | -             | -     | 11        | 21      |              |
| Alaska.....             | -                 | 11         | 140    | -                                  | 3          | 11    | 14    | -             | -     | -         | -       |              |
| Hawaii.....             | -                 | 35         | 182    | -                                  | 14         | 4     | 4     | -             | -     | -         | 3       |              |
| Puerto Rico.*.....      | 4                 | 485        | 2,231  | -                                  | 20         | 15    | 23    | -             | -     | -         | -       |              |

\*Delayed reports: Measles: P.R. 15  
Mumps: Me. 15, P.R. 25  
Rubella: Me. 1

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES  
FOR WEEKS ENDED  
NOVEMBER 23, 1968 AND NOVEMBER 25, 1967 (47th WEEK) - CONTINUED

| AREA                    | STREPTOCOCCAL<br>SORE THROAT &<br>SCARLET FEVER | TETANUS |              | TULAREMIA |              | TYPHOID |              | TYPHUS FEVER<br>TICK-BORNE<br>(Rky. Mt. Spotted) |              | RABIES IN<br>ANIMALS |              |
|-------------------------|---|---------|--------------|-----------|--------------|---------|--------------|--|--------------|----------------------|--------------|
|                         |   | 1968    | Cum.<br>1968 | 1968      | Cum.<br>1968 | 1968    | Cum.<br>1968 | 1968   | Cum.<br>1968 | 1968                 | Cum.<br>1968 |
| UNITED STATES...        | 11,027  | -       | 151          | 5         | 165          | 12      | 365          | 3  | 273          | 50                   | 3,068        |
| NEW ENGLAND.....        | 1,251   | -       | 4            | -         | 47           | 1       | 13           | -  | 1            | -                    | 74           |
| Maine.*.....            | 26  | -       | -            | -         | -            | -       | 2            | -  | -            | -                    | 55           |
| New Hampshire.....      | 18  | -       | 1            | -         | -            | -       | 1            | -  | -            | -                    | 2            |
| Vermont.....            | 19  | -       | -            | -         | 47           | -       | -            | -  | -            | -                    | 11           |
| Massachusetts.....      | 179   | -       | 1            | -         | -            | 1       | 7            | -  | 1            | -                    | 5            |
| Rhode Island.....       | 131   | -       | -            | -         | -            | -       | -            | -  | -            | -                    | -            |
| Connecticut.....        | 878   | -       | 2            | -         | -            | -       | 3            | -  | -            | -                    | 1            |
| MIDDLE ATLANTIC.....    | 311   | -       | 19           | 3         | 10           | 2       | 34           | -  | 22           | 1                    | 50           |
| New York City.....      | 5   | -       | 11           | -         | -            | 2       | 17           | -  | -            | -                    | -            |
| New York, Up-State..... | 272   | -       | 4            | -         | 7            | -       | 8            | -  | 5            | 1                    | 41           |
| New Jersey.....         | NN  | -       | 1            | -         | -            | -       | 4            | -  | 7            | -                    | -            |
| Pennsylvania.....       | 34  | -       | 3            | 3         | 3            | -       | 5            | -  | 10           | -                    | 9            |
| EAST NORTH CENTRAL...   | 808   | -       | 16           | -         | 11           | -       | 47           | -  | 9            | 6                    | 278          |
| Ohio.....               | 99  | -       | 2            | -         | 1            | -       | 19           | -  | 7            | 1                    | 92           |
| Indiana.....            | 213   | -       | 2            | -         | 1            | -       | 7            | -  | -            | 2                    | 90           |
| Illinois.....           | 129   | -       | 8            | -         | 8            | -       | 19           | -  | 2            | -                    | 38           |
| Michigan.....           | 264   | -       | 3            | -         | 1            | -       | -            | -  | -            | 2                    | 16           |
| Wisconsin.....          | 103   | -       | 1            | -         | -            | -       | 2            | -  | -            | 1                    | 42           |
| WEST NORTH CENTRAL...   | 857   | -       | 15           | 1         | 16           | -       | 38           | -  | 9            | 16                   | 760          |
| Minnesota.....          | 43  | -       | 2            | -         | -            | -       | 2            | -  | -            | 9                    | 242          |
| Iowa.....               | 134   | -       | 4            | -         | -            | -       | 2            | -  | 1            | 1                    | 119          |
| Missouri.....           | 5   | -       | 5            | -         | 7            | -       | 26           | -  | 3            | 2                    | 110          |
| North Dakota.....       | 111   | -       | -            | -         | -            | -       | -            | -  | -            | 2                    | 120          |
| South Dakota.....       | 22  | -       | 1            | -         | 3            | -       | 2            | -  | 4            | -                    | 97           |
| Nebraska.....           | 104   | -       | 3            | 1         | 1            | -       | 3            | -  | 1            | 1                    | 27           |
| Kansas.....             | 438   | -       | -            | -         | 5            | -       | 3            | -  | -            | 1                    | 45           |
| SOUTH ATLANTIC.....     | 1,189   | -       | 32           | -         | 12           | -       | 61           | -  | 141          | 7                    | 373          |
| Delaware.....           | 6   | -       | -            | -         | -            | -       | -            | -  | -            | -                    | 1            |
| Maryland.....           | 217   | -       | 3            | -         | -            | -       | 9            | -  | 18           | -                    | 6            |
| Dist. of Columbia..     | 3   | -       | 2            | -         | -            | -       | 1            | -  | -            | 1                    | 2            |
| Virginia.....           | 218   | -       | 4            | -         | 3            | -       | 10           | -  | 44           | 3                    | 129          |
| West Virginia.....      | 222   | -       | 2            | -         | -            | -       | -            | -  | 2            | 1                    | 49           |
| North Carolina.....     | 43  | -       | 2            | -         | 3            | -       | 4            | -  | 39           | -                    | 12           |
| South Carolina.....     | 201   | -       | 4            | -         | -            | -       | 3            | -  | 9            | -                    | -            |
| Georgia.....            | 18  | -       | 3            | -         | 4            | -       | 15           | -  | 26           | -                    | 73           |
| Florida.....            | 261   | -       | 12           | -         | 2            | -       | 19           | -  | 3            | 2                    | 101          |
| EAST SOUTH CENTRAL...   | 1,596   | -       | 15           | 1         | 9            | 2       | 44           | 2  | 55           | 8                    | 656          |
| Kentucky.....           | 265   | -       | 1            | 1         | 2            | 1       | 10           | -  | 10           | 7                    | 345          |
| Tennessee.....          | 1,027   | -       | 6            | -         | 5            | 1       | 19           | 1  | 38           | 1                    | 279          |
| Alabama.....            | 177   | -       | 5            | -         | -            | -       | 2            | -  | 4            | -                    | 25           |
| Mississippi.....        | 127   | -       | 3            | -         | 2            | -       | 13           | 1  | 3            | -                    | 7            |
| WEST SOUTH CENTRAL...   | 678   | -       | 29           | -         | 47           | 1       | 51           | 1  | 30           | 5                    | 470          |
| Arkansas.....           | 12  | -       | 5            | -         | 15           | -       | 18           | -  | 6            | -                    | 61           |
| Louisiana.....          | 20  | -       | 10           | -         | 7            | -       | 6            | -  | 1            | -                    | 45           |
| Oklahoma.....           | 69  | -       | -            | -         | 9            | -       | 15           | 1  | 4            | -                    | 119          |
| Texas.....              | 577   | -       | 14           | -         | 16           | 1       | 12           | -  | 9            | 5                    | 245          |
| MOUNTAIN.....           | 2,788   | -       | 1            | -         | 9            | 1       | 19           | -  | 5            | 2                    | 86           |
| Montana.....            | 43  | -       | -            | -         | -            | -       | -            | -  | -            | -                    | -            |
| Idaho.....              | 121   | -       | -            | -         | -            | -       | -            | -  | 1            | -                    | -            |
| Wyoming.*.....          | 648   | -       | -            | -         | 1            | -       | 1            | -  | -            | -                    | 3            |
| Colorado.....           | 1,450   | -       | -            | -         | 3            | 1       | 3            | -  | 4            | -                    | 4            |
| New Mexico.....         | 291   | -       | -            | -         | -            | -       | 8            | -  | -            | 2                    | 38           |
| Arizona.*.....          | 82  | -       | 1            | -         | -            | -       | 6            | -  | -            | -                    | 37           |
| Utah.....               | 149   | -       | -            | -         | 5            | -       | -            | -  | -            | -                    | 1            |
| Nevada.....             | 4   | -       | -            | -         | -            | -       | 1            | -  | -            | -                    | 3            |
| PACIFIC.....            | 1,549   | -       | 20           | -         | 4            | 5       | 58           | -  | 1            | 5                    | 321          |
| Washington.....         | 645   | -       | 1            | -         | -            | -       | 2            | -  | -            | -                    | 2            |
| Oregon.....             | 113   | -       | 1            | -         | 1            | -       | 5            | -  | -            | -                    | 6            |
| California.....         | 627   | -       | 18           | -         | 3            | 5       | 51           | -  | 1            | 5                    | 313          |
| Alaska.....             | 35  | -       | -            | -         | -            | -       | -            | -  | -            | -                    | -            |
| Hawaii.....             | 129   | -       | -            | -         | -            | -       | -            | -  | -            | -                    | -            |
| Puerto Rico*.....       | 6   | -       | 12           | -         | -            | -       | 4            | -  | -            | 1                    | 20           |

\*Delayed reports: SST: Me. 45, Wyo. 83, P.R. 1  
Typhoid: Ariz. 2  
Rabies in animals: Me. 1

Week No. 47 TABLE IV. DEATHS IN 122 UNITED STATES CITIES FOR WEEK ENDED NOVEMBER 23, 1968

(By place of occurrence and week of filing certificate. Excludes fetal deaths)

| Area                      | All Causes |                   | Pneumonia and Influenza All Ages | Under 1 year All Causes | Area  | All Causes |                   | Pneumonia and Influenza All Ages | Under 1 year All Causes |
|---------------------------|------------|-------------------|----------------------------------|-------------------------|---|------------|-------------------|----------------------------------|-------------------------|
|                           | All Ages   | 65 years and over |                                  |                         |   | All Ages   | 65 years and over |                                  |                         |
| NEW ENGLAND:              | 841        | 517               | 62                               | 32                      | SOUTH ATLANTIC:                                   | 1,279      | 684               | 50                               | 54                      |
| Boston, Mass.-----        | 272        | 164               | 23                               | 14                      | Atlanta, Ga.-----                                 | 154        | 62                | 2                                | 6                       |
| Bridgeport, Conn.-----    | 54         | 36                | 5                                | 2                       | Baltimore, Md.-----                               | 281        | 146               | 7                                | 18                      |
| Cambridge, Mass.-----     | 18         | 11                | 4                                | -                       | Charlotte, N. C.-----                             | 59         | 33                | -                                | 6                       |
| Fall River, Mass.-----    | 40         | 23                | 2                                | -                       | Jacksonville, Fla.-----                           | 75         | 37                | 2                                | 2                       |
| Hartford, Conn.-----      | 63         | 37                | 2                                | 3                       | Miami, Fla.-----                                  | 112        | 64                | 2                                | 5                       |
| Lowell, Mass.-----        | 36         | 21                | 5                                | -                       | Norfolk, Va.-----                                 | 61         | 32                | 3                                | 2                       |
| Lynn, Mass.-----          | 23         | 14                | 2                                | 1                       | Richmond, Va.-----                                | 88         | 42                | 7                                | 4                       |
| New Bedford, Mass.-----   | 19         | 14                | 1                                | 2                       | Savannah, Ga.-----                                | 31         | 15                | 1                                | 1                       |
| New Haven, Conn.-----     | 58         | 33                | 2                                | 4                       | St. Petersburg, Fla.-----                         | 92         | 74                | 10                               | 4                       |
| Providence, R. I.-----    | 78         | 47                | 2                                | 3                       | Tampa, Fla.-----                                  | 88         | 53                | 6                                | 2                       |
| Somerville, Mass.-----    | 13         | 10                | -                                | -                       | Washington, D. C.-----                            | 192        | 96                | 9                                | 1                       |
| Springfield, Mass.-----   | 63         | 48                | 9                                | 3                       | Wilmington, Del.-----                             | 46         | 30                | 1                                | 3                       |
| Waterbury, Conn.-----     | 49         | 32                | -                                | -                       |   |            |                   |                                  |                         |
| Worcester, Mass.-----     | 55         | 27                | 5                                | -                       | EAST SOUTH CENTRAL:                               | 712        | 379               | 32                               | 46                      |
| MIDDLE ATLANTIC:          | 3,499      | 2,081             | 149                              | 132                     | Birmingham, Ala.-----                             | 110        | 57                | 2                                | 8                       |
| Albany, N. Y.-----        | 50         | 27                | 1                                | -                       | Chattanooga, Tenn.-----                           | 60         | 31                | 3                                | 3                       |
| Allentown, Pa.-----       | 44         | 27                | 10                               | -                       | Knoxville, Tenn.-----                             | 38         | 25                | 4                                | 1                       |
| Buffalo, N. Y.-----       | 154        | 85                | 1                                | 9                       | Louisville, Ky.-----                              | 139        | 77                | 12                               | 4                       |
| Camden, N. J.-----        | 45         | 24                | 5                                | 3                       | Memphis, Tenn.-----                               | 161        | 86                | 2                                | 14                      |
| Elizabeth, N. J.-----     | 46         | 24                | 2                                | -                       | Mobile, Ala.-----                                 | 59         | 30                | 2                                | 8                       |
| Erie, Pa.-----            | 50         | 30                | 4                                | 1                       | Montgomery, Ala.-----                             | 40         | 25                | 4                                | 4                       |
| Jersey City, N. J.-----   | 66         | 36                | 6                                | 6                       | Nashville, Tenn.-----                             | 105        | 48                | 3                                | 4                       |
| Newark, N. J.-----        | 82         | 34                | 4                                | 2                       | WEST SOUTH CENTRAL:                               | 1,061      | 562               | 41                               | 67                      |
| New York City, N. Y.----- | 1,760      | 1,051             | 66                               | 67                      | Austin, Tex.-----                                 | 30         | 19                | 3                                | 4                       |
| Paterson, N. J.-----      | 28         | 17                | -                                | -                       | Baton Rouge, La.-----                             | 39         | 22                | 1                                | 3                       |
| Philadelphia, Pa.-----    | 483        | 286               | 2                                | 16                      | Corpus Christi, Tex.-----                         | 30         | 17                | -                                | 1                       |
| Pittsburgh, Pa.-----      | 224        | 140               | 15                               | 7                       | Dallas, Tex.-----                                 | 181        | 98                | 5                                | 17                      |
| Reading, Pa.-----         | 70         | 39                | 8                                | 3                       | El Paso, Tex.-----                                | 38         | 18                | 1                                | 3                       |
| Rochester, N. Y.-----     | 109        | 74                | 8                                | 1                       | Fort Worth, Tex.-----                             | 74         | 36                | 4                                | 4                       |
| Schenectady, N. Y.-----   | 27         | 18                | -                                | 2                       | Houston, Tex.-----                                | 166        | 85                | 5                                | 6                       |
| Scranton, Pa.-----        | 48         | 35                | 2                                | 2                       | Little Rock, Ark.-----                            | 57         | 28                | 4                                | 5                       |
| Syracuse, N. Y.-----      | 90         | 61                | 4                                | 5                       | New Orleans, La.-----                             | 117        | 58                | 1                                | 6                       |
| Trenton, N. J.-----       | 54         | 29                | 6                                | 3                       | Oklahoma City, Okla.-----                         | 70         | 33                | 2                                | 4                       |
| Utica, N. Y.-----         | 34         | 22                | 2                                | -                       | San Antonio, Tex.-----                            | 139        | 73                | 7                                | 9                       |
| Yonkers, N. Y.-----       | 35         | 22                | 2                                | 5                       | Shreveport, La.-----                              | 67         | 41                | 5                                | 4                       |
| EAST NORTH CENTRAL:       | 2,709      | 1,534             | 86                               | 152                     | Tulsa, Okla.-----                                 | 53         | 34                | 3                                | 1                       |
| Akron, Ohio-----          | 70         | 43                | 1                                | 5                       | MOUNTAIN:   | 477        | 266               | 25                               | 28                      |
| Canton, Ohio-----         | 42         | 24                | 1                                | 2                       | Albuquerque, N. Mex.-----                         | 43         | 19                | 3                                | 11                      |
| Chicago, Ill.-----        | 723        | 390               | 32                               | 44                      | Colorado Springs, Colo.-----                      | 29         | 11                | 5                                | 1                       |
| Cincinnati, Ohio-----     | 201        | 121               | 6                                | 8                       | Denver, Colo.-----                                | 142        | 76                | 8                                | 5                       |
| Cleveland, Ohio-----      | 173        | 94                | -                                | 7                       | Ogden, Utah-----                                  | 12         | 5                 | -                                | -                       |
| Columbus, Ohio-----       | 145        | 72                | 2                                | 8                       | Phoenix, Ariz.-----                               | 118        | 71                | 3                                | 4                       |
| Dayton, Ohio-----         | 77         | 38                | 2                                | 4                       | Pueblo, Colo.-----                                | 27         | 18                | 4                                | 3                       |
| Detroit, Mich.-----       | 405        | 227               | 11                               | 23                      | Salt Lake City, Utah-----                         | 56         | 32                | 1                                | 2                       |
| Evansville, Ind.-----     | 45         | 32                | 1                                | 2                       | Tucson, Ariz.-----                                | 50         | 34                | 1                                | 2                       |
| Flint, Mich.-----         | 64         | 38                | -                                | 5                       | PACIFIC:  | 1,896      | 1,154             | 31                               | 83                      |
| Fort Wayne, Ind.-----     | 60         | 34                | 4                                | 3                       | Berkeley, Calif.-----                             | 28         | 20                | -                                | 1                       |
| Cary, Ind.-----           | 28         | 13                | 2                                | 2                       | Fresno, Calif.-----                               | 42         | 23                | 2                                | 1                       |
| Grand Rapids, Mich.-----  | 61         | 41                | -                                | 4                       | Glendale, Calif.-----                             | 50         | 32                | -                                | -                       |
| Indianapolis, Ind.-----   | 156        | 93                | 1                                | 9                       | Honolulu, Hawaii-----                             | 46         | 25                | 2                                | 4                       |
| Madison, Wis.-----        | 44         | 18                | 6                                | 2                       | Long Beach, Calif.-----                           | 133        | 81                | 4                                | 5                       |
| Milwaukee, Wis.-----      | 139        | 83                | 3                                | 9                       | Los Angeles, Calif.-----                          | 606        | 385               | 11                               | 27                      |
| Peoria, Ill.-----         | 38         | 20                | 2                                | 4                       | Oakland, Calif.-----                              | 88         | 43                | 1                                | 9                       |
| Rockford, Ill.-----       | 50         | 34                | 4                                | 4                       | Pasadena, Calif.-----                             | 50         | 37                | -                                | -                       |
| South Bend, Ind.-----     | 36         | 25                | 3                                | 2                       | Portland, Ore.-----                               | 140        | 89                | 1                                | 6                       |
| Toledo, Ohio-----         | 93         | 56                | 2                                | 2                       | Sacramento, Calif.-----                           | 79         | 50                | -                                | 1                       |
| Youngstown, Ohio-----     | 59         | 38                | 3                                | 3                       | San Diego, Calif.-----                            | 81         | 38                | 1                                | 5                       |
| WEST NORTH CENTRAL:       | 849        | 517               | 32                               | 39                      | San Francisco, Calif.-----                        | 232        | 124               | 8                                | 9                       |
| Des Moines, Iowa-----     | 62         | 46                | 3                                | -                       | San Jose, Calif.-----                             | 38         | 27                | -                                | 1                       |
| Duluth, Minn.-----        | 21         | 15                | 2                                | 1                       | Seattle, Wash.-----                               | 183        | 109               | -                                | 9                       |
| Kansas City, Kans.-----   | 36         | 18                | 3                                | 6                       | Spokane, Wash.-----                               | 53         | 39                | -                                | 4                       |
| Kansas City, Mo.-----     | 133        | 80                | 4                                | 6                       | Tacoma, Wash.-----                                | 47         | 32                | 1                                | 1                       |
| Lincoln, Nebr.-----       | 26         | 20                | 2                                | -                       | Total   | 13,323     | 7,694             | 508                              | 633                     |
| Minneapolis, Minn.-----   | 129        | 78                | 1                                | 7                       | Cumulative Totals                                 |            |                   |                                  |                         |
| Omaha, Nebr.-----         | 83         | 47                | -                                | 2                       | including reported corrections for previous weeks |            |                   |                                  |                         |
| St. Louis, Mo.-----       | 232        | 127               | 5                                | 12                      | All Causes, All Ages -----                        | 596,589    |                   |                                  |                         |
| St. Paul, Minn.-----      | 63         | 50                | 2                                | -                       | All Causes, Age 65 and over-----                  | 342,767    |                   |                                  |                         |
| Wichita, Kans.-----       | 64         | 36                | 10                               | 5                       | Pneumonia and Influenza, All Ages-----            | 23,518     |                   |                                  |                         |
|                           |            |                   |                                  |                         | All Causes, Under 1 Year of Age-----              | 28,248     |                   |                                  |                         |

## EPIDEMIC GASTROENTERITIS

(Continued from page 435)

(Reported by Calvin B. Spencer, M.D., Acting Chief, Communicable Disease Division, Jack Russell, D.V.M., Chief, and George T. Bear, D.V.M., Assistant Veterinary Epidemiologist, Division of Veterinary Public Health, and William Halferty, Communicable Disease Investigator, Northwest District, Ohio Department of Health; George F. Linn, M.D., Commissioner of Health, Huron County Department of Health, Norwalk, Huron County, Ohio; and two EHS Officers.)

## Editorial Comment

The precise mode of transmission in this outbreak has not yet been ascertained. However, characteristics of the epidemic curves suggest a common source exposure for the primary cases with a person-to-person spread in family contacts accounting for secondary cases. Person-to-person spread was probably responsible for the secondary cases, and consequently, one might expect a significantly higher attack rate in mothers, who have more intimate contact with sick children, than in fathers, and a higher attack rate in larger families (five or more members) than in smaller families. Although the attack rate in mothers (37 percent) was higher than in fathers (22 percent), this difference was not statistically significant. Furthermore, attack rates in large and small families were similar.

The illness is clinically and epidemiologically compatible with winter vomiting disease.<sup>1,2,3</sup> This disease has an explosive onset, usually mimics a common source epidemic, presents with either predominantly upper or lower gastrointestinal symptoms, and generally occurs in persons in residential schools between September and March.

Although no responsible agent has been isolated, a viral etiology for winter vomiting disease is suspected. This is supported by the experience of a few investigators who have been able to transmit infection to volunteers through aerosolized and ingested bacteria-free fecal filtrates. However, more than one agent may be responsible for this syndrome.

## References:

- <sup>1</sup>Editorial, Winter Vomiting Disease. *Brit Med J*, 2:953-954, 1965.
- <sup>2</sup>Reimann, H. A.: Viral Dysentery. *Amer J Med Sci*, 246:404-409, 1963.
- <sup>3</sup>Levitt, Lawrence P., Wolfe, Viola, and Bond, James O.: Winter Vomiting Disease in Florida Students. Submitted for Publication.

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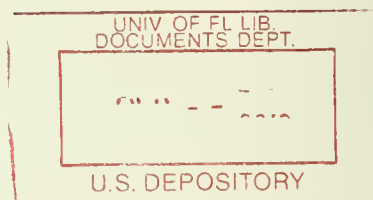
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ATTN: THE EDITOR

MORBIDITY AND MORTALITY WEEKLY REPORT

NOTE: THE DATA IN THIS REPORT ARE PROVISIONAL AND ARE BASED ON WEEKLY TELEGRAMS TO THE NCDC BY THE INDIVIDUAL STATE HEALTH DEPARTMENTS. THE REPORTING WEEK CONCLUDES ON SATURDAY; COMPILED DATA ON A NATIONAL BASIS ARE RELEASED ON THE SUCCEEDING FRIDAY.

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